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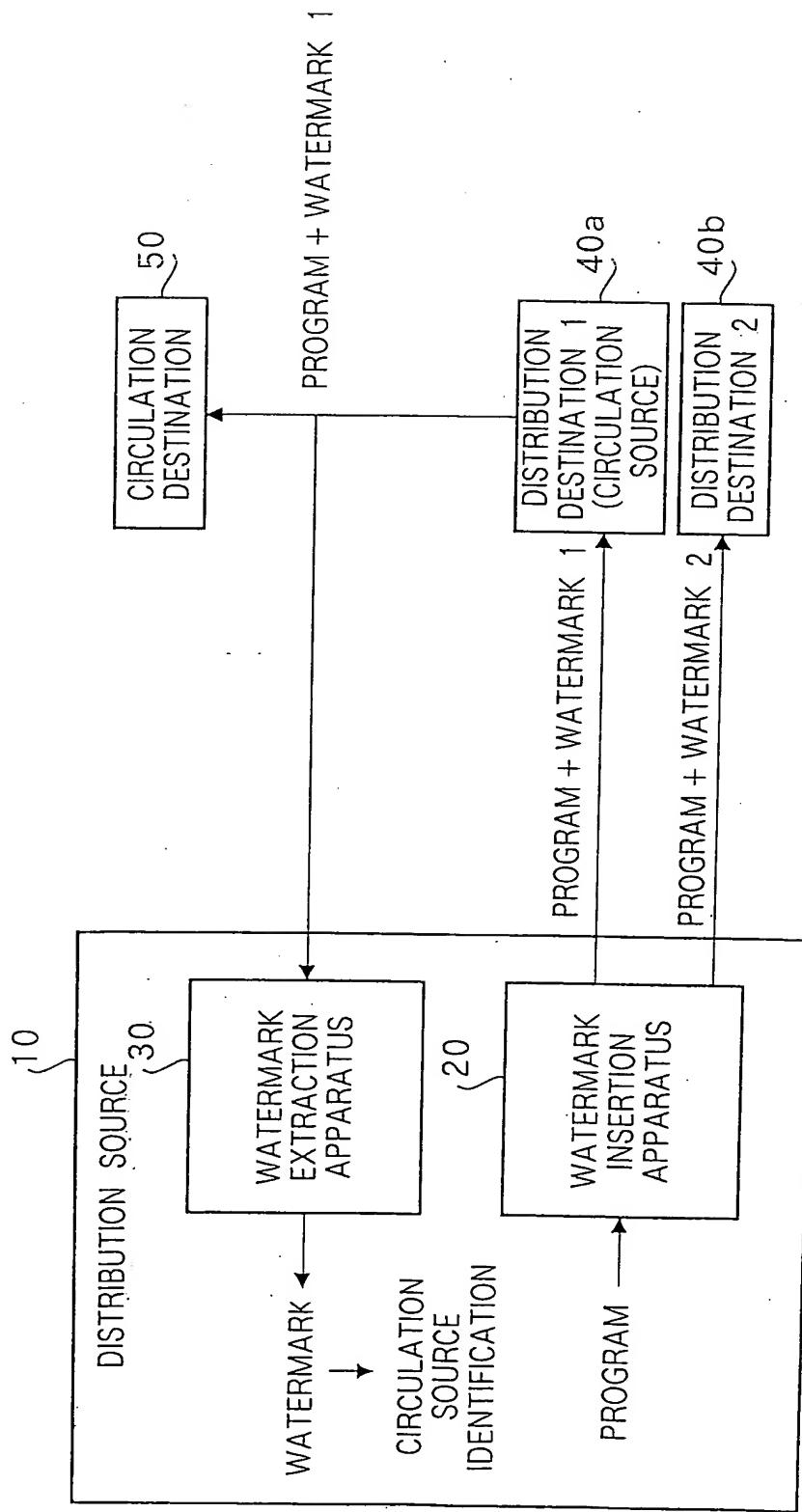


FIG. 1

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20 WATERMARK INSERTION APPARATUS

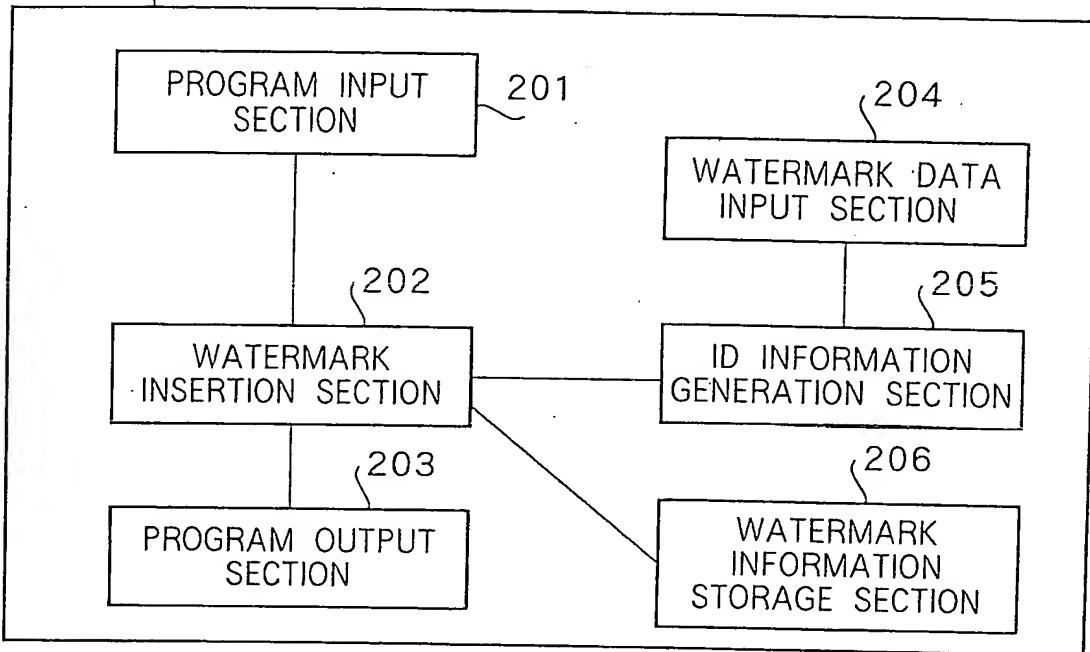


FIG. 2

30 WATERMARK EXTRACTION APPARATUS

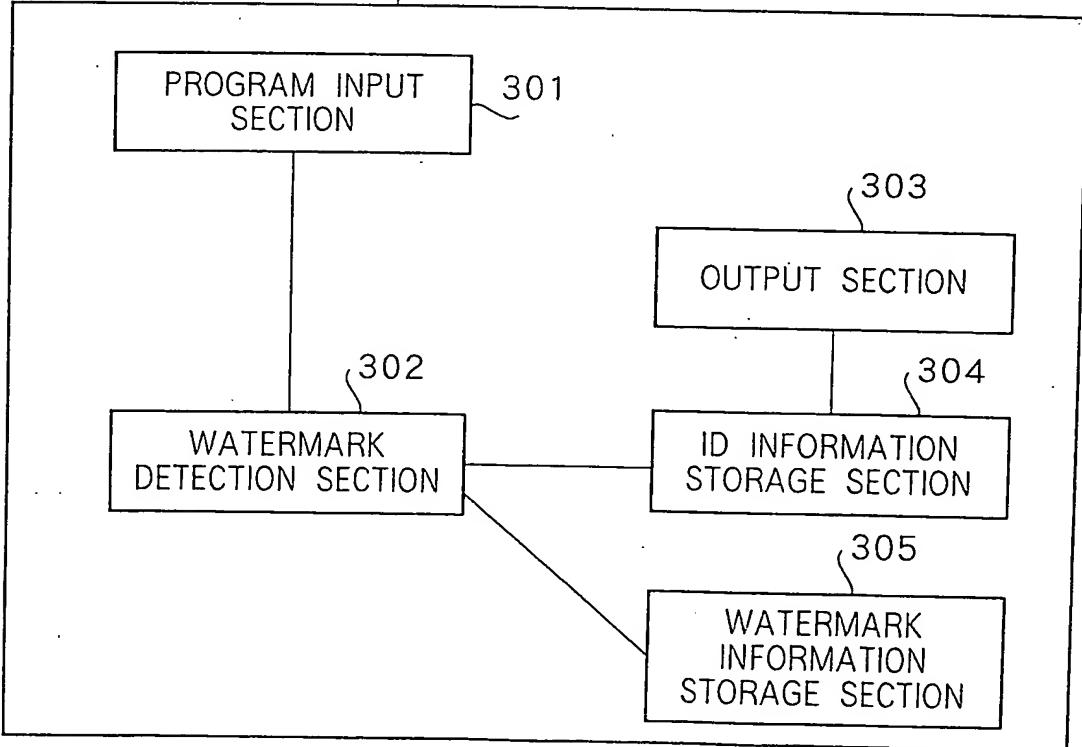


FIG. 3

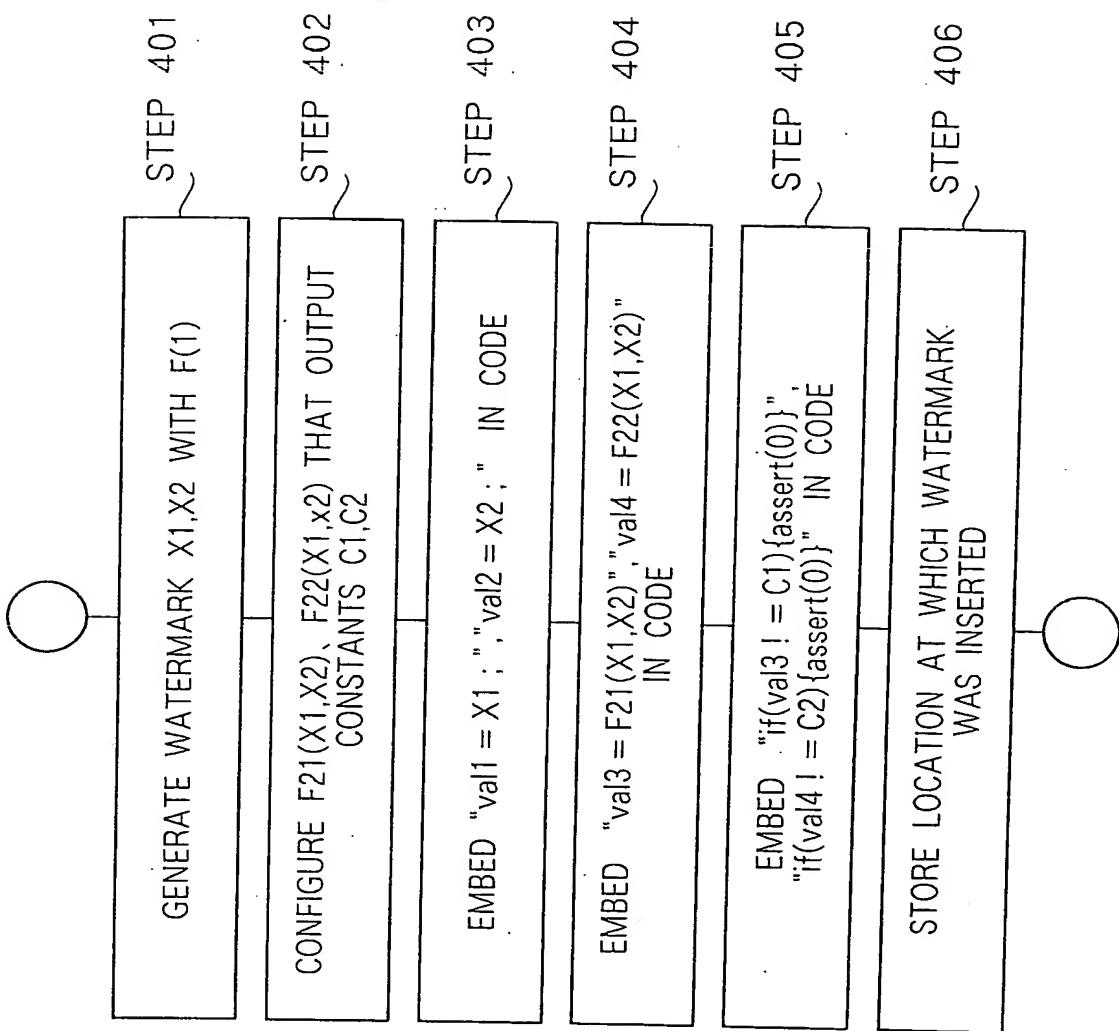


FIG. 4

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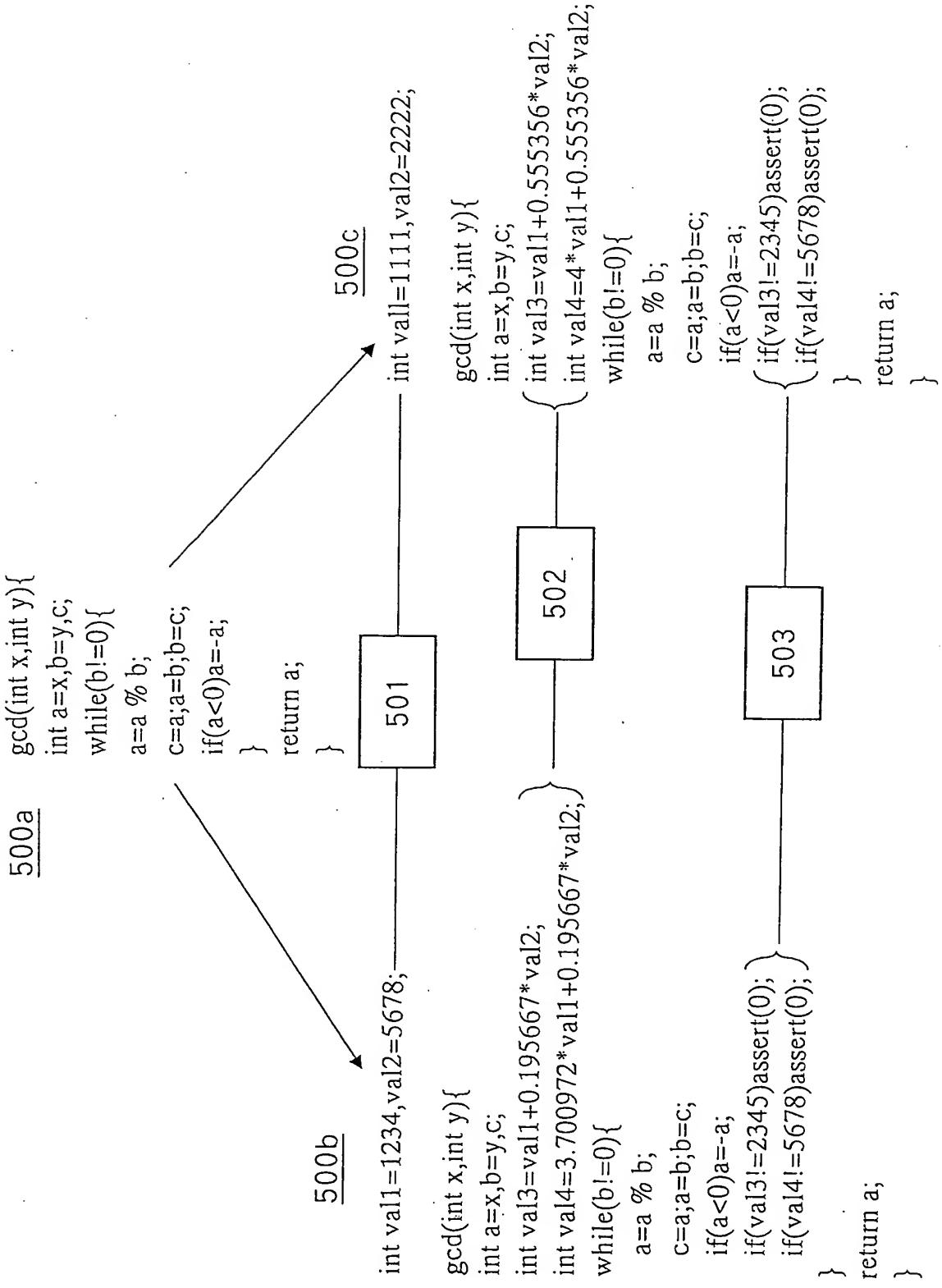


FIG. 5

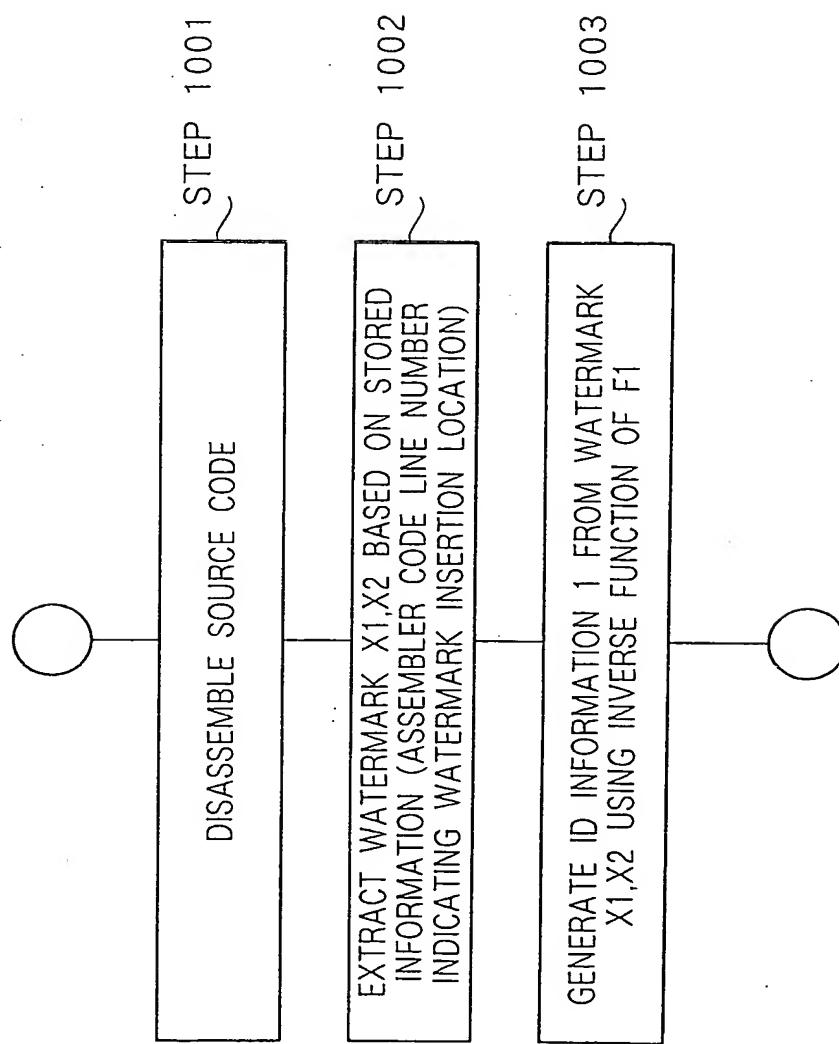


FIG. 6

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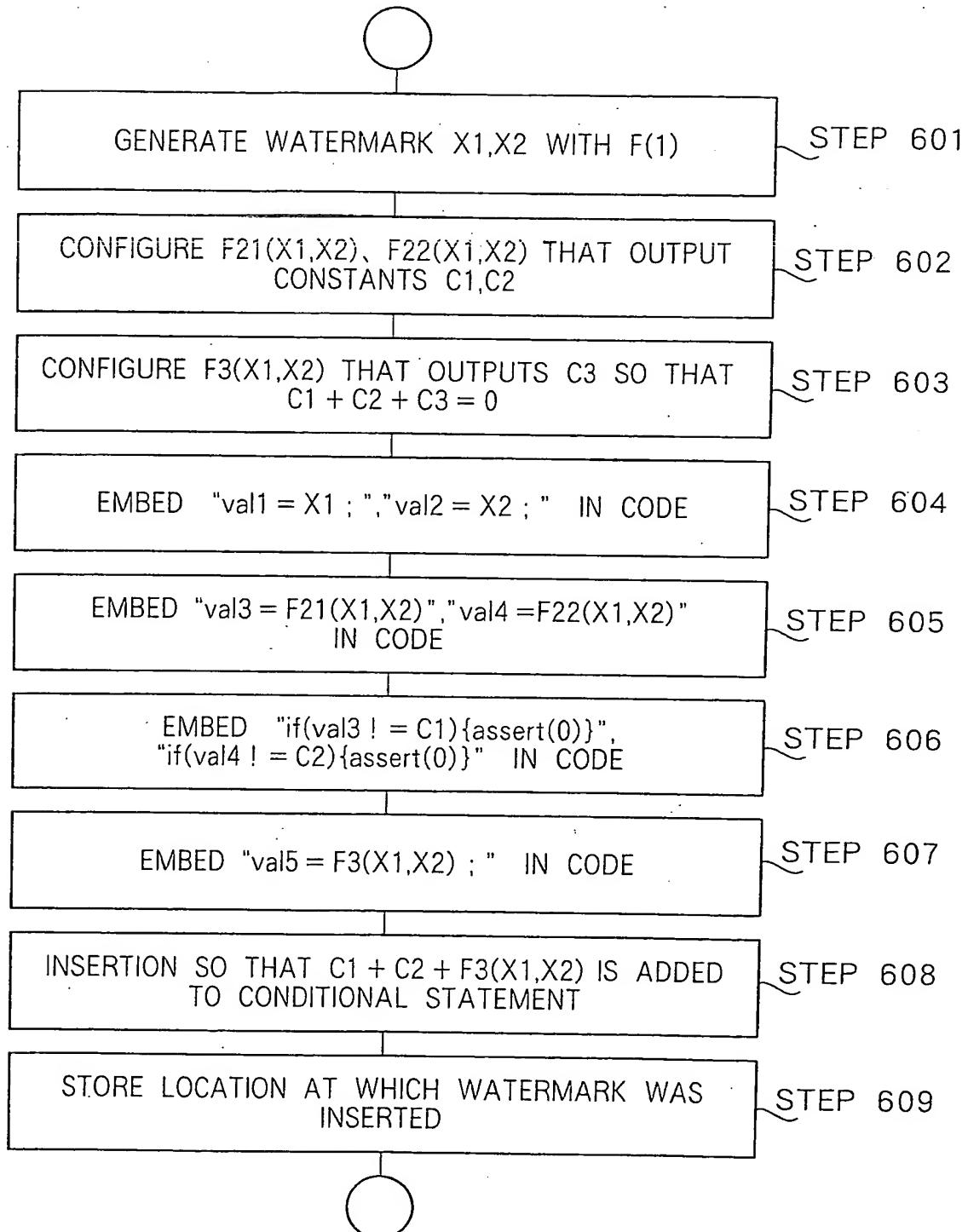


FIG. 7

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800a

```
gcd(int x,int y){
int a=x,b=y,c;
while(b!=0){
a=a % b;
c=a; a=b; b=c;
if( a<0)a=-a;
}
return a;
}
```

800b

```
int val1=1234,val2=5678; ~701
```

```
gcd(int x,int y){
int a=x, b=y, c;
int val3=val1+0.195667*val2;
int val4=3.700972*val1+0.195667*val2;
int val5=5.601297*val1+0.195667*val2; } ~702
while(b!=0){
a=a % b;
c=a;a=b;b=c;
if(a<val3+val4+val5)a=-a; ~703
if(val3!=2345)a++;
if(val4!=5678)assert(0); } ~704
}
return a;
}
```

FIG. 8

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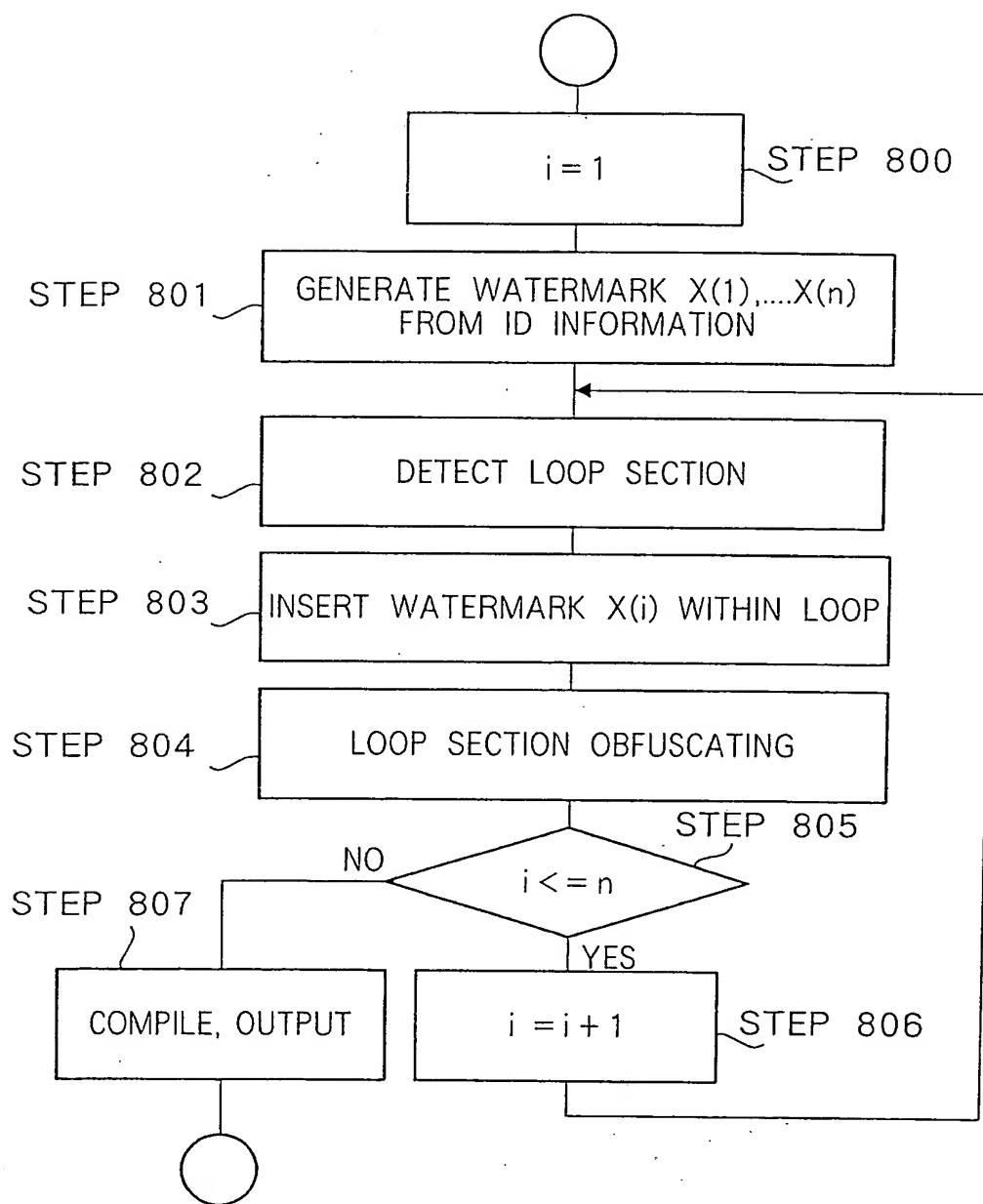


FIG. 9

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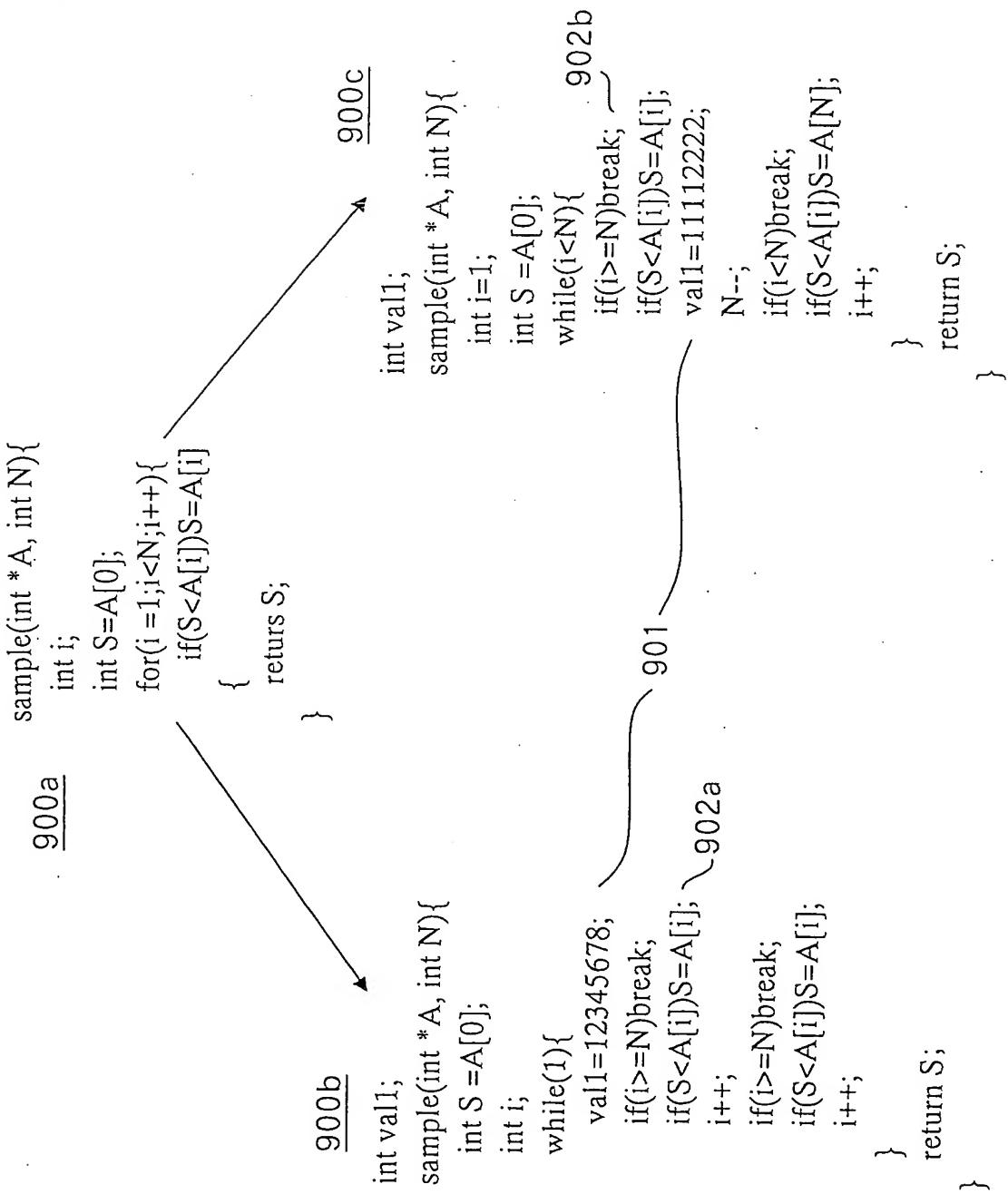


FIG. 10

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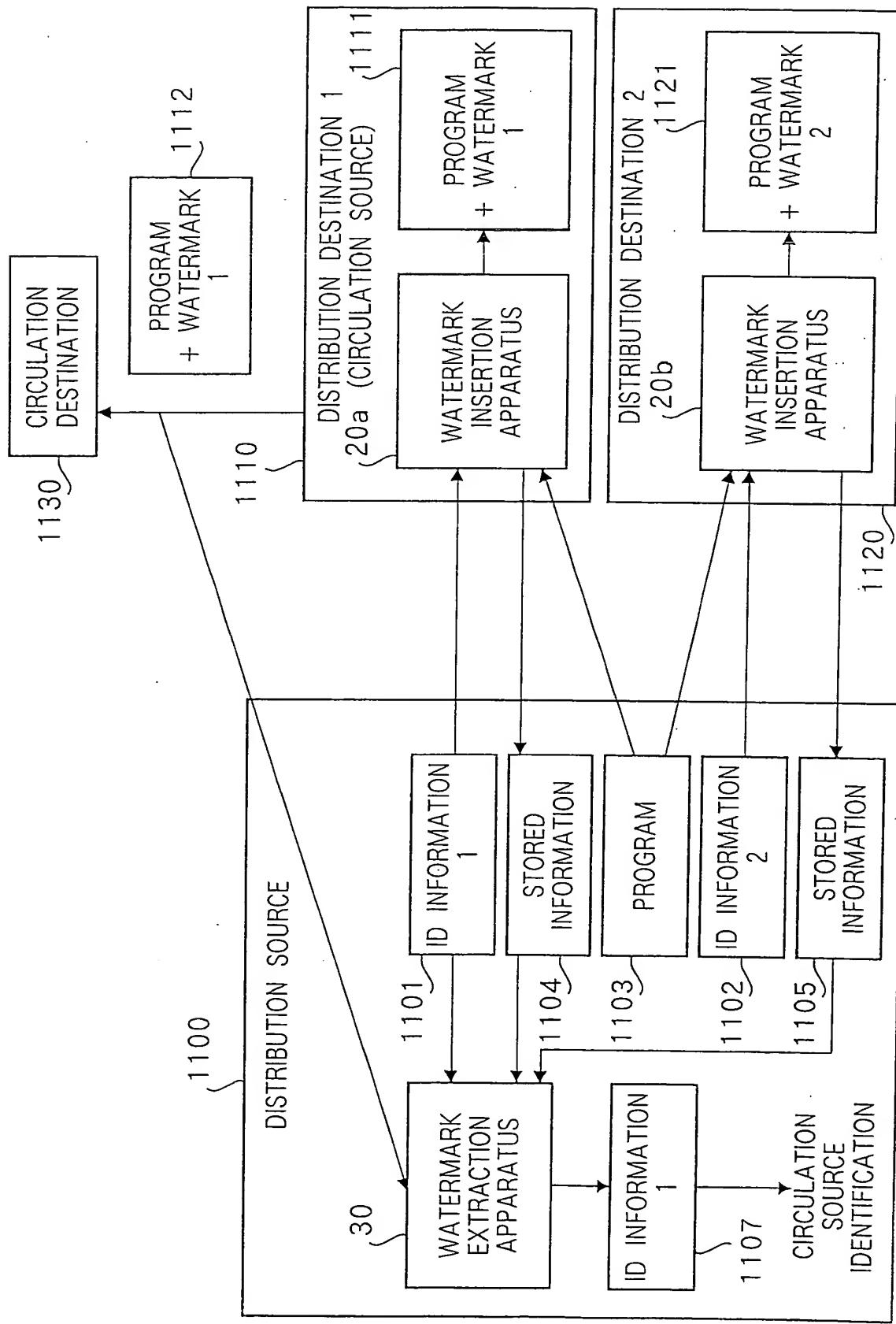


FIG. 11

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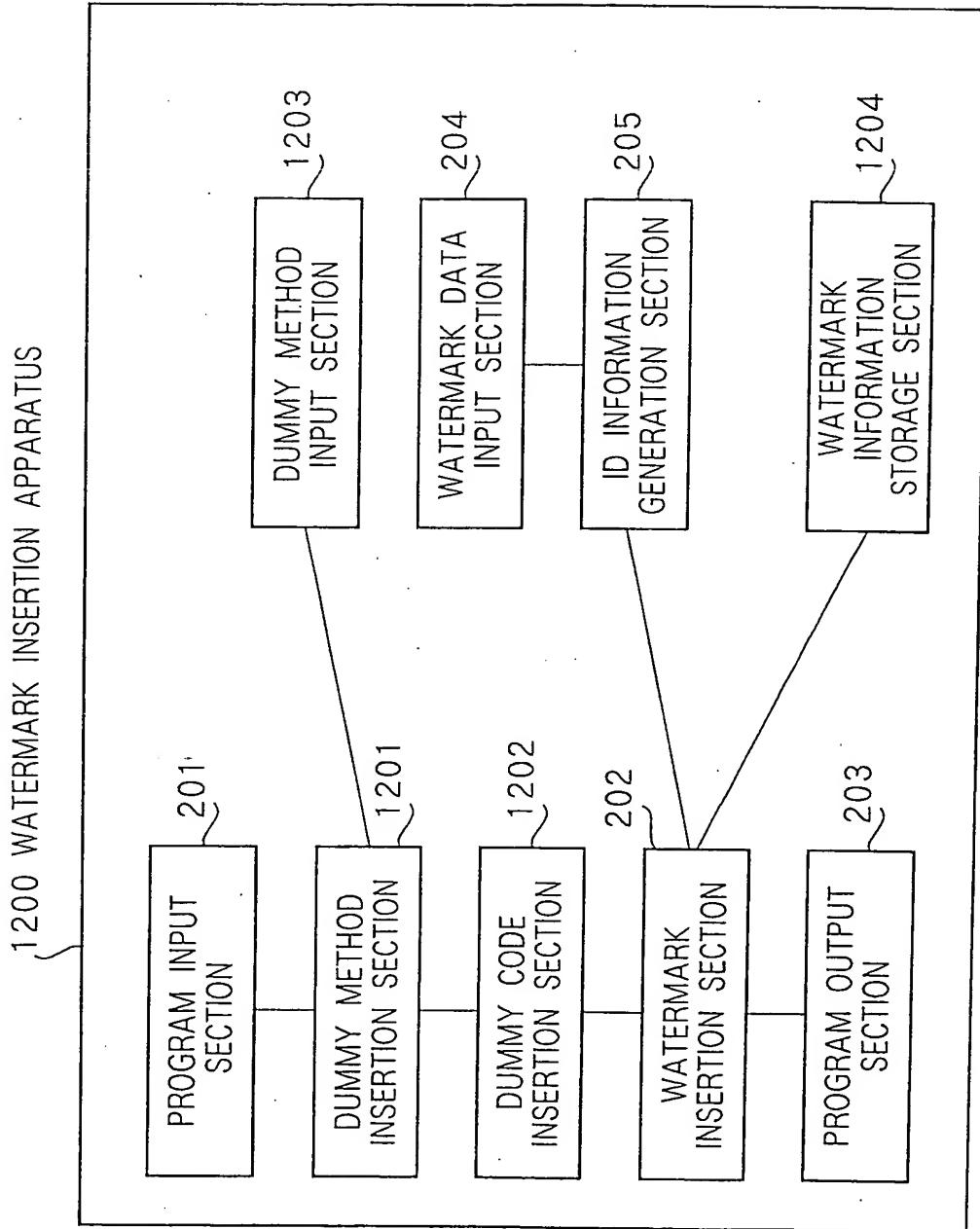


FIG. 12

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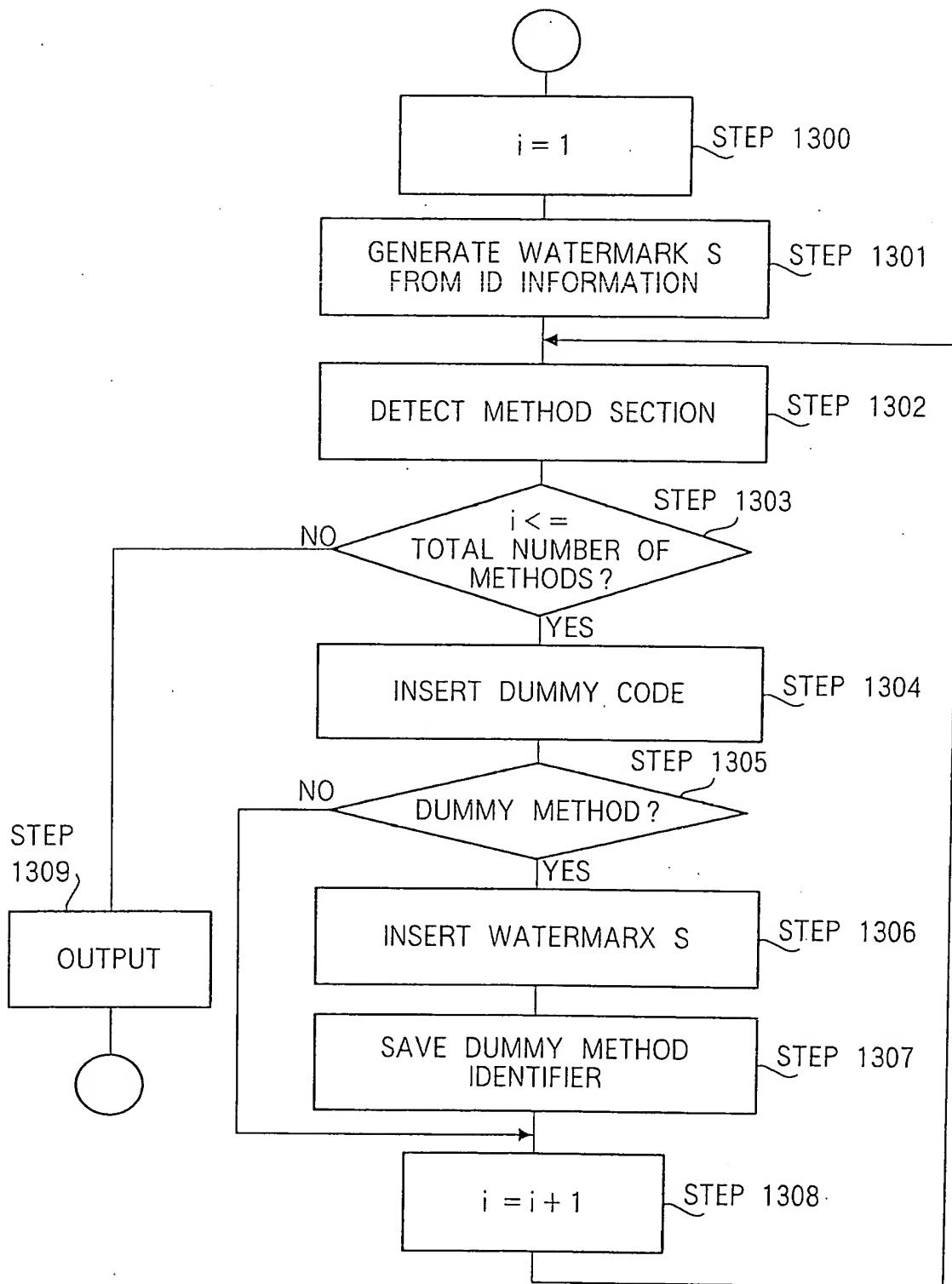


FIG.13

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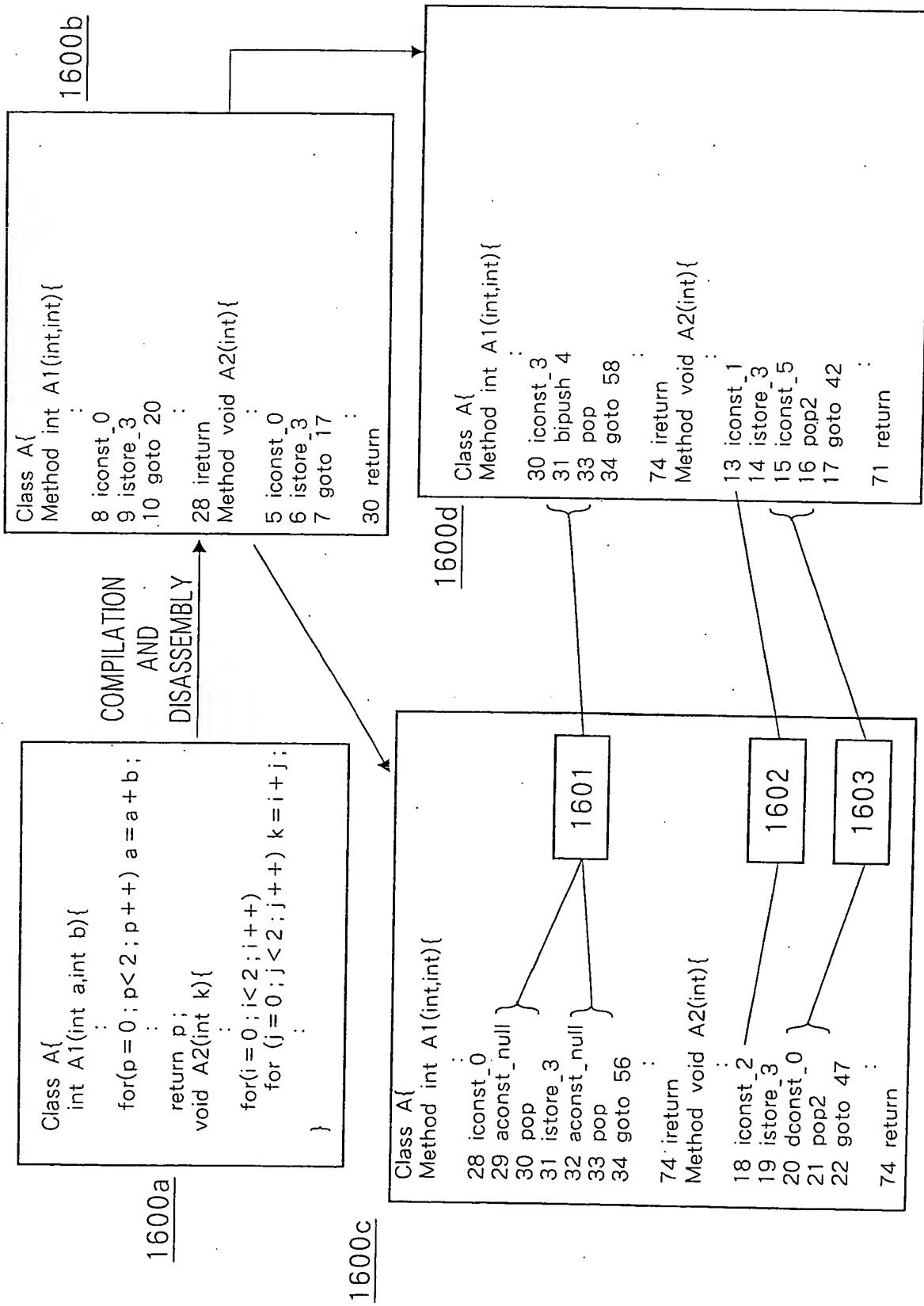


FIG. 14

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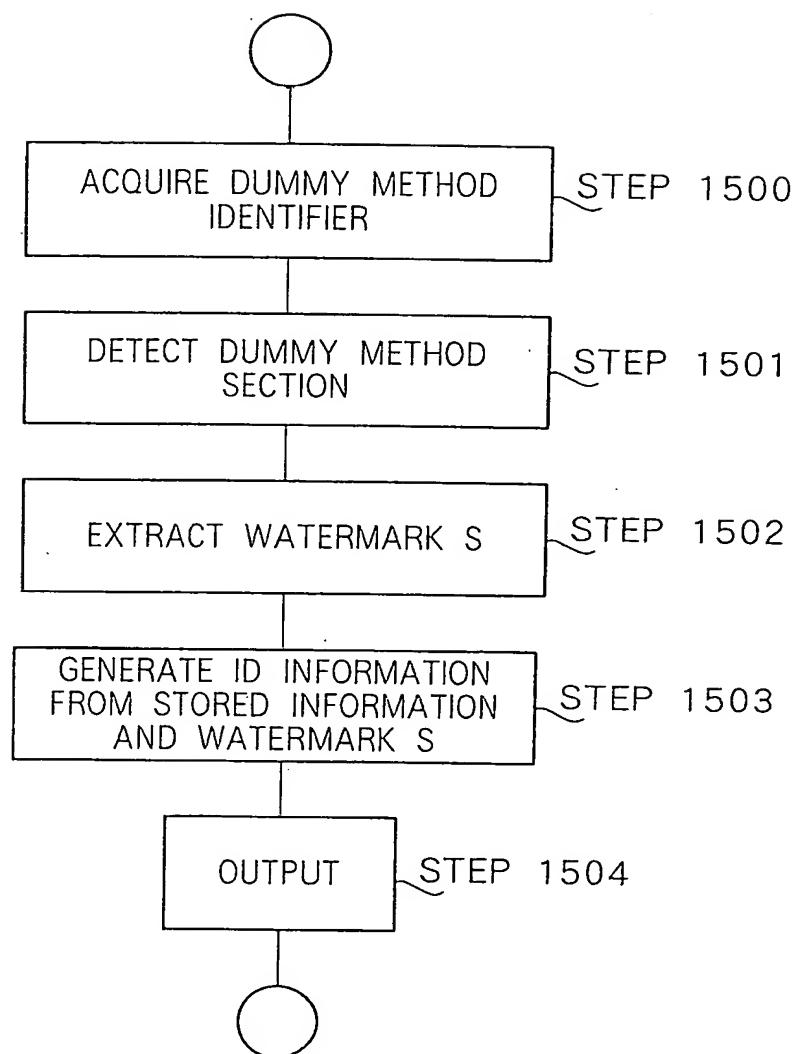


FIG.15

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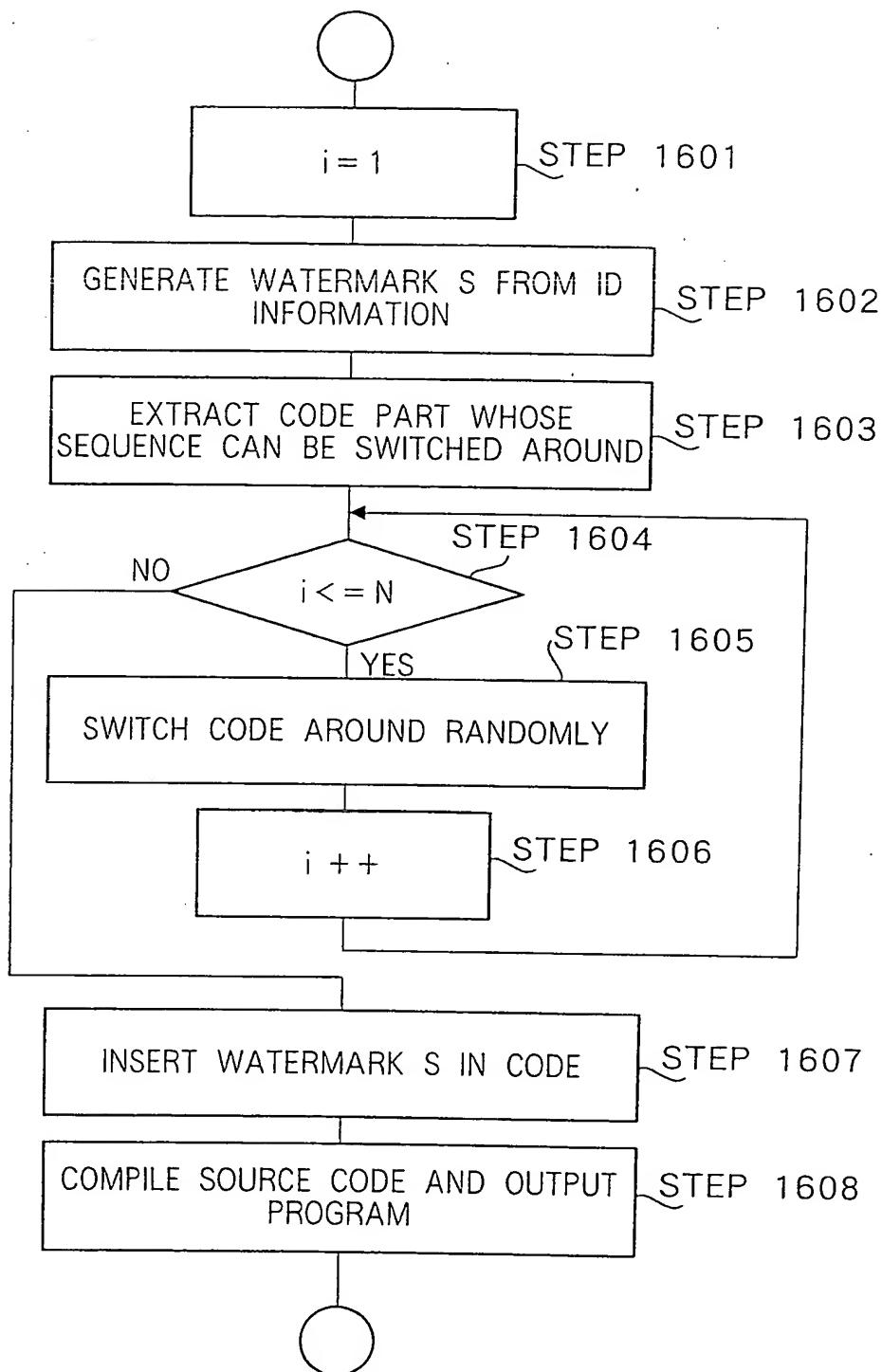


FIG.16

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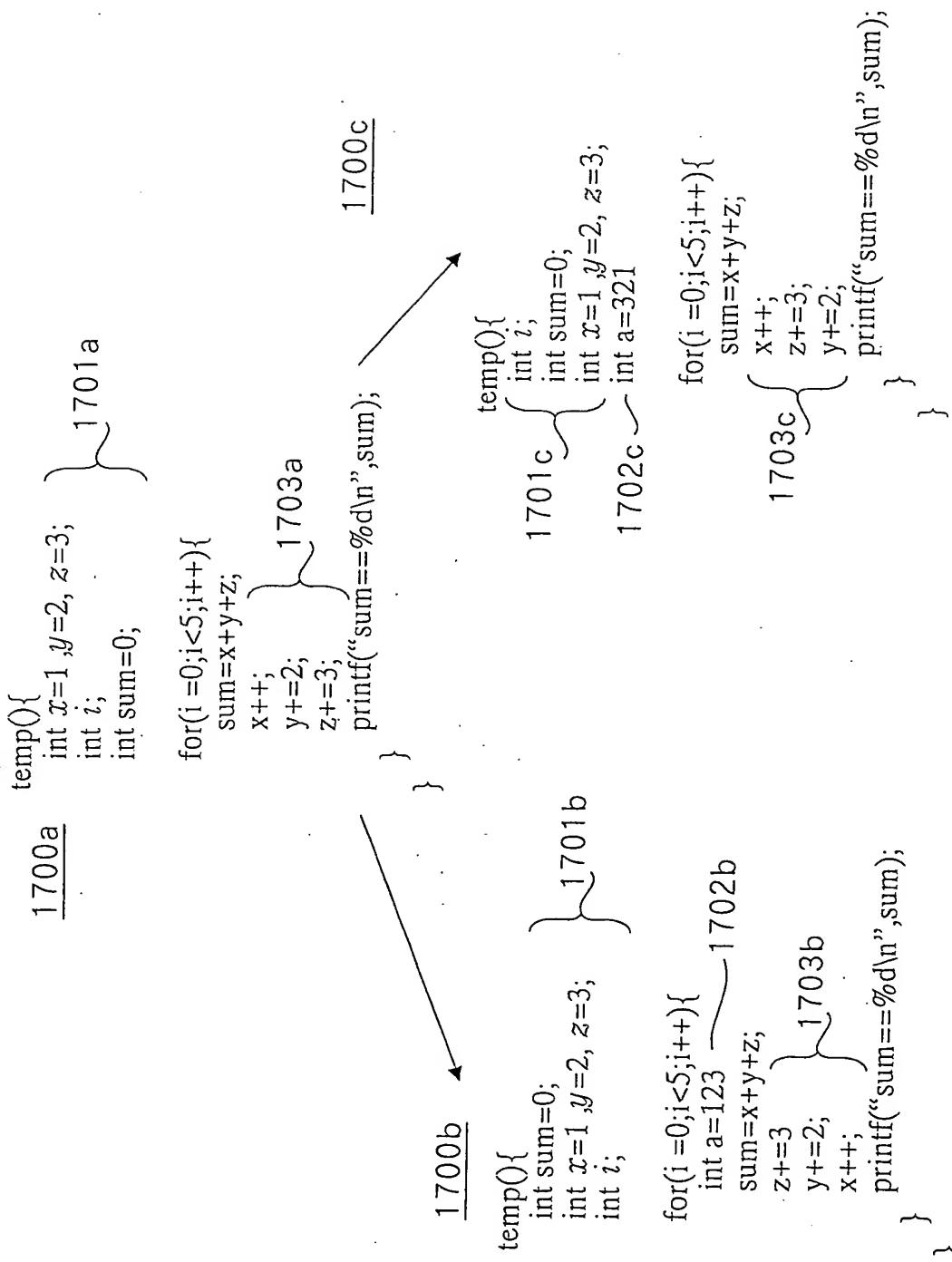


FIG.17